

## BRIEFER ARTICLES.

### NEW AND NOTEWORTHY WASHINGTON PLANTS.

**Cardamine callosicrenata**, n. sp. Perfectly glabrous throughout: stems erect, 60 to 70<sup>cm</sup> high, purplish below, shining above, coarsely striate: leaves all similar and pinnately trifoliate, or some of the radical rarely simple; terminal leaflets orbicular, 3 to 5<sup>cm</sup> long and nearly as broad, closely crenate or the uppermost lobed, the crenations tipped with a short blunt callous point; lateral leaflets ovate, entire, mostly obtuse, 10 to 15<sup>mm</sup> long: raceme ample: flowers white: pods 25 to 30<sup>mm</sup> long, erect on widely spreading pedicels 10<sup>mm</sup> long: style stout: seeds light brown, about twenty in each pod.

In springy places, Spokane, July 2 and September 27, 1896.

This species has much the aspect of *C. Lyallii* Wats., but is more nearly related to *C. Breweri*.

**DRABA AUREOLA** Wats., described from Lassen's Peak, California, is found sparingly in volcanic scoria on Mt. Rainier at 10,000 feet altitude. Only two other plants, *Smelowskia calycina* Meyer and *Poa Lettermani* Vasey, occur at higher altitudes on this peak.

**ERYSIMUM ARENICOLA** Wats. has yellow flowers like others in the same group. It is not rare in its type locality, Mt. Steele, Olympic mountains, and grows either in loose sand or in rock crevices.

**ARENARIA PALUDICOLA** Rob. (*A. palustris* Wats.). This interesting species, first found in swamps near San Francisco, California, and later at San Bernardino by Parish, has been detected by Mr. J. B. Flett growing in sphagnum swamps near Tacoma. The Washington plants agree well with the specimens distributed by Parish, save that the stems are sparingly branched and the leaves are not at all flaccid. Some of the specimens are peculiar in that the leaves on the uppermost branches are decidedly reduced, but more of the specimens do not exhibit this character. Dr. Behr's note in *Erythea* (Nov. 1896), predicting that this plant will some day be found in Alaska, seems likely to be fulfilled now that it is known to occur in Washington.

**STELLARIA OBTUSA** Engelm. is not a rare plant in the Blue moun-

tains, at the head of Touchet river. Single specimens of this species form dense cespitose mats often a foot in diameter.

*SIDALCEA HENDERSONI* Wats. This species was described from a single plant, supposed by its discoverer to be a waif, collected in 1886 at Clatsop beach, Oregon. As long ago as 1887 I collected a single specimen of it on the sea beach near Seattle, and last year found it in abundance in the brackish marshes at the mouth of the Snohomish river near Everett. It is a beautiful species with deep rose flowers nearly an inch in diameter. Apparently it is confined to the immediate proximity of the sea.

*Astragalus Palousensis*, n. sp. Perennial from a stout woody caudex: stems several, 40 to 60<sup>cm</sup> high, simple or branched above, striate, sparingly pubescent with short appressed hairs, these white below and blackish above: leaves 8 to 12<sup>cm</sup> long; leaflets 25 to 31, elliptical or lanceolate, obtuse or even truncate, appressed pubescent beneath, glabrous above, 5 to 20<sup>mm</sup> (usually about 15<sup>mm</sup>) long, nearly sessile; petioles sparsely hirsute; stipules deltoid-acuminate: racemes elongate, 5 to 12<sup>cm</sup> long; flowers 20 to 25, erect on short pedicels, 12<sup>mm</sup> long; bracts lanceolate, shorter than the calyx: calyx obliquely campanulate, the slender teeth nearly as long as the tube, pubescent with short appressed black hairs: corolla pale yellowish, with or without a black spot on the wings: pod 2<sup>cm</sup> long, crustaceous, narrowly oblong, tipped with a slender short beak, its surface transversely reticulated and sparsely pubescent with short white hairs; stipe as long as the calyx tube or shorter.

Common on rich loess hillsides about Pullman.

Very closely related to *A. reventus* Gray, and *A. arrectus* Gray. From the latter it differs in the much shorter stipe and beak of the pod; from the former in its more elongate raceme, in the leaves being glabrous above, and in the much shorter and sparser pubescence of the flowers.

*RIBES PROSTRATUM* L'Her. This species has not hitherto been reported from west of the Rocky mountains. It has been collected by Whited at the head of Twisp river, Cascade mountains, and by the writer near the source of the Duckaboose river, Olympic mountains. The specimens from the latter place are very well developed, some of the leaves being three inches in diameter.

*Valeriana Columbiana*, n. sp. Stems erect from a rather slender caudex, 20<sup>cm</sup> high, minutely puberulent especially below: radical leaves

ovate, entire, obtuse at apex, 2<sup>cm</sup> long, glabrous, their petioles 2 to 3 times as long, narrowly margined, puberulent; cauline two pairs, 3-divided; the basal segments ovate-lanceolate, obtuse, entire; the terminal segment 3-cleft into ovate acutish lobes; petioles as long as the blade or shorter, nearly glabrous: inflorescence loosely cymose, the whitish flowers sessile in the cymules; peduncles puberulent: corolla 15<sup>mm</sup> long, the tube twice the length of the limb, hairy at base within: bracts linear-subulate, as long as the glabrous fruit: stigma minutely 3-lobed: stamens glabrous.

Wenatchee, June 9, 1896. *Kirk Whited*, no. 140.

*BIDENS BECKII* Torr. The range of this species is given in the *Synoptical Flora* as "Canada to New Jersey and Missouri." Strangely enough it occurs in Green lake, King county, where it is undoubtedly native, but it has not been detected elsewhere on the Pacific coast. Equally surprising is the occurrence of *Hypericum Canadense majus* Gray on the shores of the same lake. The western limit of the species is given in Gray's Manual as "Lake Superior."

Such a remarkably isolated station for these two plants seems difficult to account for, but I cannot resist the suggestion that it may have been brought about through the agency of migratory water birds.

*CAMPANULA AURITA* Greene, described from Alaskan specimens, is an abundant plant on the perpendicular cliffs of Mt. Steele, Olympic mountains. The flowers are much deeper blue than those of the common *C. rotundifolia*.

*Pentstemon Whitedii*, n. sp. (§ EUPENTSTEMON). Stems several from a lignescent base, 2 to 3<sup>dm</sup> high, puberulent below and glandular pubescent above: radical leaves glabrous or sparingly puberulent, narrowly spatulate-lanceolate, acute, saliently dentate with large obtuse teeth, or rarely entire or nearly so, 4 to 8<sup>cm</sup> long; cauline leaves about four pairs, ovate-lanceolate, acute, entire or sparingly dentate, clasping at base, the lower puberulent, the upper glandular pubescent especially on the upper side, 3 to 4<sup>cm</sup> long: thyrsus virgate, interrupted; peduncles and pedicels short: sepals broadly lanceolate, acute, 7 to 8<sup>mm</sup> long: corolla bilabiate, 15 to 20<sup>mm</sup> long, "light blue," glandular pubescent without, the lobes puberulent within, throat sparsely bearded: stamens glabrous, the sterile filament secundly bearded for nearly its whole length with golden yellow hairs: entire inflorescence viscidly hirsute: fruit not seen.

Collected in rocky soil near Wenatchee, Kittitas county, July 7, 1896. *Kirk Whited* no. 131.

This species is near *P. ovatus* Dougl. and *P. pruinosus* Dougl., but is easily distinguished by its peculiar radical leaves, viscid pubescence and rather larger flowers.

PINGUICULA VULGARIS L. is apparently not a rare plant in the mountains of Washington. We have it from three stations in the Cascades and it occurs plentifully in the Olympics. All the specimens belong to the form *macroceras*.

EMPETRUM NIGRUM L. forms great mats on wet rocks at altitudes of 7000 to 8500<sup>ft</sup> on Mt. Rainier. It has not hitherto been reported from south of Alaska.

HIPPURIS MONTANA Ledeb. This Alaskan plant was collected several years since by Macoun in the Selkirk mountains, B. C. It also occurs in abundance in the Olympic mountains, at 5000<sup>ft</sup> altitude, and on Mt. Rainier at from 4000 to 5000<sup>ft</sup> altitude. Its occurrence on this peak at so low an altitude indicates that it extends much farther south in the Cascade range. In all probability it has been overlooked or mistaken for a moss, as it resembles in no small degree a sterile *Polytrichum*. — C. V. PIPER, *Agricultural College, Pullman, Wash.*

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#### ANOTHER "COMPASS" PLANT.

SEVERAL years ago I noticed the fact that *Wyethia amplexicaulis* was a "compass" plant, and its peculiarities are marked enough to deserve description. The radical leaves of this plant are from twelve to eighteen inches in length, lance-oblong, perfectly glabrous and minutely resiniferous. Usually they number from six to ten, and if the plant is shaded are widely spreading. However, when the plant is growing in open situations the whole blade may be perfectly erect and turned so as to face east and west. More commonly only the terminal portion of the blade is affected, which in this case is sharply twisted to bring it into position.

The stem of *Wyethia* is from one to two feet high and bears from three to five leaves which are shorter and broader than the radical, and sessile by a clasping base. Owing to their more favorable position, these cauline leaves exhibit their peculiarity well. They are always rigidly erect and so twisted at base that any leaf usually faces the leaf immediately above it and the one immediately below it; in other